

Claims

What is claimed is:

- 1 1. A system for broadcasting short range RF real-time
2 information to motor vehicles traveling along a roadway
3 comprising:
 - 4 a sequence of transceiving short range broadcast
5 stations along said highway, said stations spaced so that
6 the broadcast ranges of said stations tangentially
7 overlap each other;
 - 8 a sequence of motor vehicles moving along said
9 roadway, each vehicle including a transceiver for said
10 short range RF signals;
 - 11 means in each of said motor vehicles with said
12 transceivers for transmitting data specific to said
13 transmitting motor vehicle; and
 - 14 means in said broadcast stations for broadcasting
15 said data specific to said transmitting motor vehicle to
16 all of said motor vehicle transceivers.
- 1 2. The short range RF broadcasting system to motor
2 vehicles of claim 1 wherein said short range frequency is
3 in the range of 824-892 Mhz.
- 1 3. The short range RF broadcasting system to motor
2 vehicles of claim 2 wherein:
 - 3 said broadcast stations are cellular broadcast
4 towers spaced on said roadway; and
 - 5 said transceivers in said motor vehicles are
6 cellular telephones.

- 1 4. The short range RF broadcasting system to motor
2 vehicles of claim 1 further including:
3 means associated with each of the broadcast stations
4 for providing information zones along said roadway
5 respectively defined by the broadcast range of the
6 closest broadcast station, and
7 said means for broadcasting in each zone include
8 means for broadcasting information of particular interest
9 to all motor vehicles in each zone.
- 1 5. The short range RF broadcasting system to motor
2 vehicles of claim 4 wherein said broadcast information is
3 of particular interest to all motor vehicles in each
4 zone, includes said data specific to a transmitting
5 vehicle in the respective zone.
- 1 6. The short range RF broadcasting system to motor
2 vehicles of claim 5 wherein said broadcast information
3 relates to a breakdown of the transmitting vehicle.
- 1 7. The short range RF broadcasting system to motor
2 vehicles of claim 5 wherein said broadcast information
3 relates to road hazards in the respective zone as noted
4 by the transmitting vehicle.
- 1 8. The short range RF broadcasting system to motor
2 vehicles of claim 5 wherein said broadcast information
3 relates to traffic conditions in the respective zone as
4 noted by the transmitting vehicle.

1 9. The short range RF broadcasting system to motor
2 vehicles of claim 5 wherein said broadcast information
3 relates to traffic conditions in zones other than the
4 broadcast zone as noted by a transmitting vehicle.

1 10. The short range RF broadcasting system to motor
2 vehicles of claim 1 further including display means in
3 each of said motor vehicles associated with said
4 transceivers for displaying received broadcast data.

1 11. In a system for broadcasting short range RF real-
2 time information to motor vehicles traveling along a
3 roadway comprising a sequence of transceiving short range
4 broadcast stations along said highway, said stations
5 spaced so that the broadcast ranges of said stations
6 tangentially overlap each other;
7 moving a sequence of motor vehicles along said
8 roadway, each vehicle including a transceiver for said
9 short range RF signals;
10 enabling the transmission from each of said motor
11 vehicles with said transceivers of data specific to said
12 transmitting motor vehicle; and
13 enabling each of said broadcast stations to
14 broadcast said data specific to said transmitting motor
15 vehicle to all of said motor vehicle transceivers.

1 12. The short range RF broadcasting method to motor
2 vehicles of claim 11 wherein said short range frequency
3 is in the range of 824-892 Mhz.

1 13. The short range RF broadcasting method to motor
2 vehicles of claim 12 wherein:
3 said broadcasts are cellular communications; and
4 said transceivers in said motor vehicles are
5 cellular telephones.

1 14. The short range RF broadcasting method to motor
2 vehicles of claim 11 further including the steps of:
3 providing information zones along said roadway
4 respectively associated with each of the broadcast
5 stations, each of said zones defined by the broadcast
6 range of the closest broadcast station, and
7 broadcasting information of particular interest to
8 all motor vehicles in each zone.

1 15. The short range RF broadcasting method to motor
2 vehicles of claim 14 wherein said broadcast information
3 is of particular interest to all motor vehicles in each
4 zone and includes said data specific to a transmitting
5 vehicle in a the respective zone.

1 16. The short range RF broadcasting method to motor
2 vehicles of claim 15 wherein said broadcast information
3 relates to a breakdown of the transmitting vehicle.

1 17. The short range RF broadcasting method to motor
2 vehicles of claim 15 wherein said broadcast information
3 relates to road hazards in the respective zone as noted
4 by the transmitting vehicle.

1 18. The short range RF broadcasting method to motor
2 vehicles of claim 15 wherein said broadcast information
3 relates to traffic conditions in the respective zone as
4 noted by the transmitting vehicle.

1 19. The short range RF broadcasting method to motor
2 vehicles of claim 15 wherein said broadcast information
3 relates to traffic conditions in zones other than the
4 broadcast zone as noted by a transmitting vehicle.

- 1 20. The short range RF broadcasting method to motor
- 2 vehicles of claim 11 further including the step of
- 3 displaying received broadcast data in association with
- 4 said transceivers in each motor vehicle.